



Chief of Staff of the Army General Bernard Rogers (shaking hands with General Morris) addressed Corps employees at the Engineer Day celebration in June 1979.

responsibilities that equal or exceed those of other four-star generals. I felt that way especially because of the Israeli airfield job, which was hot at that time.

At one Army staff meeting, I think there were five generals trained as engineers around his table. One interesting discussion arose around the policy that an infantry colonel with a secondary MOS [military occupational specialty] in engineering could be a district engineer while the regulations prohibit an engineer who has a secondary MOS in infantry from being an infantry troop commander.

I told the staff that wasn't fair. I indicated also that these good infantrymen with secondary MOSs in engineering would all transfer to the engineers anyhow, so we'll get the good ones, and the Corps would be better off in the long run.

Of course, the Chief of Engineers worked with everybody on the Army staff, Personnel, General Officers Branch, et cetera. The principal players were the Chief of Staff of the Army, the Assistant Secretaries of the Army, the Secretary of the Army, and, of course, the OMB and the president. The Secretary of Defense was involved, but only on rare occasions, like the Israeli airfield job, which we'll talk about.



General Morris toured Corps of Engineers emergency operations in Buffalo, New York, after a severe snowstorm in February 1977.

Q: What about the Chief of Engineers' relationship with Congress?

A: Congress. The Chief of Engineers has a lot of business with governors too, incidentally, because of the permits. Congress looks on the Chief of Engineers as an individual with whom they have a right to communicate. They do. The Chief of Engineers, to be effective, needs to be able to deal with the Congress smoothly, within the limits of his authority and what he can do, but also, he has to know the players over there and be able to talk to them.

I had much background in dealing with Congress, including 11 years testifying before four committees. I had no problem with the system. I don't mean I didn't have problems with individual congressmen. So far as knowing the players, who to deal with and how to approach them, respond, et cetera, we worked that out pretty well, I think.

As always, we had good people in Civil Works. The directors of Civil Works in my time were McGinnis and Graves, and they were both very good in dealing with outside elements.

The staff in Civil Works, Tofani, Gene Lawhun and Schwaiko and Irv Reisler, all those Civil Works staffers who had been in the congressional liaison field since-were just excellent. They were probably the best team in Washington for doing its business with the Congress.

The trick wasn't doing business with them. The trick was doing business with them and staying within the bounds of propriety. We were always accused of stepping over the line, but in fact, I know of no instances where the Corps used its access to the Congress improperly. Of course, you know, everybody says we did. Those are the people and agencies in our government with whom the Chief of Engineers dealt.

Q: You mentioned Mr. Tofani. Did he leave the Corps during the time where you were the Chief?

A: Joe left while I was in Civil Works. He kept talking about retiring for years, and finally he did. I do remember we had a nice party for him at the Forrestal Building cafeteria. President Nixon signed a letter for Joe.

Several people retired right after I became Chief. Perhaps they didn't want to work for me!

Joe was a good friend, and also an outstanding Corps person. As I said earlier, I think he was the most respected man in Washington, as an individual, in the water resource program and water policy.

Q: As Chief of Engineers you also worked with foreign countries. What other governments were you involved with?

A: The only things we haven't talked about in terms of relationships would be the foreign governments. How to handle that one.

As you recall, as director of Civil Works, I was sent off to Egypt and to Russia under the auspices of the United States government. Egypt was a special project associated with the Suez Canal. Russia was a type of technical exchange. The Corps also was sending people to China, but not under the civil works aegis.

When I became deputy chief, General **Gribble** sent me to Saudi Arabia. In the course of that trip, I went to Italy and some other places.

The point I'm getting at here is that during the time that I was in the Office of the Chief of Engineers as the director of Civil Works, deputy, and later as Chief, there was a growing attention to the Corps' technical ability in the international arena, and I found I was spending an unusually large amount of time receiving visitors from various countries.

So we set up the International Projects Office. I asked Colonel Bill Badger and Ms. Olga Lansing to start the project. It took over the liaison that I had been doing personally and handled it even better because they had time to devote to it.

Later on, Frank **DeMateo**, chief engineer for **USAID**, joined the Corps. Frank had been the assistant project manager for the job at Goose Bay, Labrador, when I was there some years before. I knew Frank from that and had a high regard for him. So he ran the office for some years with Olga's help.

The Chief of Engineers had to operate properly in the international field. I don't know how it is now, but during my time, the international program was quite important.

Out of the international program came several specific events. One had already started, of course-the Saudi Arabia construction program. That probably was the catalyst for setting up the international organization.

The Suez Canal project was important and should have developed into a much greater involvement with the Corps than it turned out. We could not obtain adequate congressional support and the funding needed to go beyond technical advice in the Suez Canal.

The same thing is true, to some extent, in China. Our involvement in China goes back into the 1970s. It's been hot and cold, obviously. It's never really developed into any major program for the Corps' engineering capability. There's been some, but it's been a little

disappointing, particularly in the water transportation field. Everybody's been jumping around trying to build dams, and that's okay, too, but transportation has been left out.

One by-product of the international program, of course, was the Israeli airfield job, and that came to the Corps because President Carter had put it into the Camp David agreement. In many ways, that's probably the most complicated and most difficult job I had in my military service in the Corps. I think we'll save that for a special subject later.

I want to leave the international program by stressing its beneficial results from projects in Africa, South America, et cetera.

Q: We have discussed civil and international programs. What about the **Corps'** activities in support of the Army and Air Force?

A: We haven't talked much about military, but as Chief of Engineers, I spent more time on military programs than I did on the public works and the international programs. The reasons for that are rather basic. The only reason that the Corps of Engineers exists in the first place is to provide good engineering service to the military. If there had to be a choice-and I hope there never is-the public works program would not be a part of the Corps' mission. The military support would always be-that's fundamental.

However, if the Corps has a civil works program, this peacetime mission greatly enhances our ability to support the military in war and peace. That point's not always clearly understood.

One of the Chief of Engineers' fundamental requirements is keeping the United States Army as his principal target for support service. All the other roles have to be subordinated to that objective. That's why one of our four goals was to support the Total Army. Total Army: National Guard, Reserves, and Active Forces.

We took a serious look at all the things we were doing and how to better support the military-not just construction, but military mobilization, engineering equipment, supply, organization for combat, support of soldiers, and support in the Army-the whole spectrum.

Several things came out of that which I believe we should illustrate. One was the real property management program, which we covered earlier. The idea was that from cradle to grave, the Chief of Engineers should be responsible for real property. He should be required to acquire the land, develop plans and programs for its use, design, do construction, the operation and maintenance, then ultimately the disposal. Those functions all deal with real property, and my thought was the Chief of Engineers should be the responsible person for every bit of that, including the money.

At that time, program management was a big thing. There was a program for research and development, a program for procurement. I published and lectured on the real property management program for the Army, and was successful, basically, in putting all that under one manager, the director of Military Programs, as I'd call it. We finally brought to the Chief of Engineers all of the functions that I mentioned except one, that one-the control of the money for repairs, utilities, and maintenance.

We had the money for the housing, we had money for construction, but we didn't have control over the money for operation and maintenance; however, we did have a lot to say about getting the money and justifying it to Congress and providing technical advice to the facilities engineer in using the money. So that real property management program to me was a simple, clear way to visualize the military program. Out of that idea came what we called

“one stop shopping” for engineering service, which was mentioned earlier in the deputy discussion.

I was always promoting the importance of the civil works program to the Army by keeping us ready to respond during peace-keeping work and especially mobilization for war with competent engineering capability, et cetera.

After getting the Army leadership’s support, I began to wonder what happens if they call our hand, call our bluff on mobilization. Could we react promptly? The answer was we could not. We didn’t have the mechanisms to convert our civil capability and the construction industry to full mobilization. Only a few generals serving in 1978 had been involved in the total mobilization by this country in World War II—gas coupons, food stamps, rationing, et cetera. A lot of people have planned for total mobilization who have not experienced it. Total commitment of a country to support a war is a rare and mammoth move.

The Corps staff was instructed to go about the business, internally, of figuring out what we had to do to support mobilization. Then General Rogers set up an Army policy that spoke of mobilization. General Meyer followed with a rather dynamic objective for the Army to be prepared to mobilize to meet international requirements.

There were several meetings at the National War College, Fort **McNair**, on the subject. It turned out that the engineers were well ahead because we had asked ourselves the question some months earlier.

In conjunction with that, we needed to do something with the construction industry in the country. So I looked to the Society of Military Engineers [SAME]. Today, thanks to Walter **Bachus** [brigadier general, retired], executive director, SAME has a nice program to communicate with and activate the industries.

Then came the environmental and the energy programs. We, the Corps, initiated a survey of energy efficiency on military posts. Colonel Don **Weinert** and the Strategic Studies Group came up with a program to evaluate energy consumption and energy conservation.

The environmental program on military installations was more difficult. CERL had developed a computerized EIS environmental assessment program. As mentioned earlier, the military commanders in the mid-1970s didn’t look on the environment as something that impacted them, within the post perimeters. We tried to change that philosophy, but I don’t know that we did a very good job of it at that time. The Army now has the message on using the property properly and on handling pollution problems.

Besides engineering support, energy, and the environment, the Corps’ activity on the military posts included the basic construction program in housing and facilities. We were starting the day care facility program. Nobody really wanted to talk about day care early on but, of course, that has developed into quite a program. We were competing very heavily to get the post exchange work, and the commissary work. We got some, but not all of it because they did not use appropriated funds totally.

The really big item for military program management was the Saudi program, and then later, the Israeli airfields.

Q: What did the military construction program look like during your term as Chief?

A: It was pretty big. The Saudi program dominated it. We had—1 would say \$6 billion a year in the military program, and I would guess 40 percent of that was Saudi, maybe a little more.

A lot of housing for U.S. forces, the program to build new facilities for tanks, and thanks to General Cooper there was an upgrade program to get our soldiers in Europe in better shape. The rest of it was just spread throughout the country on various posts. Hospitals, we were building hospitals. Hospitals are always tough. Walter Reed was completed during my time. We upgraded the hospital in Hawaii, and the congressional group from Colorado was insistent that we replace the Fort Carson hospital.

Q: What about work for the Air Force?

A: Air Force construction was managed a little differently because the Air Force had AFRCE, Air Force Regional Civil Engineers. Each of our districts had to deal with an AFRCE. In some cases, an agent, a representative, was placed in the district office, like in Omaha.

I think we gave the Air Force better projects than we gave the Army, and one of the reasons was the Air Force probably did a little better job figuring out what they wanted, to start with. The changes were not quite as late, or as extensive. Second, their method of coordinating the work was better. The fact we were working for another customer may have had something to do with it.

Our Air Force construction responsibility, incidentally, was modified somewhat because earlier, Congressman Mendel Rivers divided the world into two parts. The Navy does the Air Force in one and the Corps in the other.

Admiral Don **Islen**, commander of the Facilities Engineer Corps in the Navy, wanted to adjust the boundary to give him Italy and Sicily. We took over the eastern Mediterranean, which included Saudi Arabia and also Israel

General **Bachus** started the annual facilities engineers conference. The first was held in Chicago and I attended that. They're still going on. That was a very good move, incidentally.

Finally, I became convinced that there was a better way to operate and maintain Army facilities than the way we were doing them. I never could understand why, in a state where you have three or four posts in the same general area-like right around Washington, for example-you have to have separate organizations for each installation when the same type of work has to be done for all of them.

So we made a study to consider the Chief of Engineers' taking over the entire facilities engineer program. I brought Colonel [Charles] Blaylock, district engineer, Mobile, to develop a method of consolidating military facilities maintenance. Well, it turned out that was a good idea in the minds of Perry Fliakis, Assistant Secretary of Defense for Installations. Perry had also decided that there was too much money being spent managing contracts on all these various military facilities. When Blaylock's report surfaced, Mr. Fliakis was agreeable to the idea.

I wanted to start in the Norfolk area to get away from Washington and to a location where there were Navy, Army, and some Air Force facilities nearby. He said to do it here in Washington. That's how this Washington arrangement occurred.

I suppose that's worked fairly well, but I do think that the Army would be well served to make the Chief of Engineers responsible for executing the Army installation maintenance program. It would be difficult to organize and structure, but it can be done, and I believe it would save the taxpayers a lot of money while improving service to post personnel and units.

You still end up with this basic problem of who gets the dollars on the post. I hear that the Congress now has directed a study of **20-some** installations, some Air Force, some Army, some Navy, to come up with a single plan for reporting operations, backlog of maintenance

repair, et cetera. I suppose a concept for organizing and operating facilities and engineering will emerge.

I know I'm in a minority there, and it's a program that may never fly. Still, I think it's sufficiently critical that it should never be allowed to die completely. As the Army gets smaller, it seems that it's more and more important that the limited moneys and manpower available to maintain and operate these posts be put to the maximum productivity. I think the Chief of Engineers could manage such a program, similar to the way we operate and maintain the facilities in the public works programs.

The money thing could be worked out with the post commander in some way. So that idea-that egg was laid, but it's never hatched.

Q: I've got one here that may fit in this area. I think it was in 1976 that the Corps of Engineers was designated a combat arm?

A: A little before that maybe. [Lieutenant] General Frank Camm, when he was at TRADOC, was successful in having the engineers designated as a combat arm. That was something he, as well as a lot of other engineer officers, strived for over many years. He takes a lot of pride in the fact that this was accomplished-and he should. Later these efforts contributed, to some extent, to our becoming a separate command, which was a matter of pride among the Army engineers. It put us in a different reporting category in things like command selection lists, et cetera. Our commanders are now selected as part of the same command selection list for the rest of the Army.

Q: Let's return to the subject of international programs. You have some additional information you would like to discuss.

A: Yes, I just want to wrap up the international as a general subject and, of course, later on, under projects, we will become more specific. I want to be sure the record reflects that there were several peripheral events that influenced my thinking on the need for the Corps of Engineers' becoming involved in international work. One was PIANC, the Permanent International Association of Navigation Congresses, and the other one was the International Committee on Large Dams. The former was made up of countries as opposed to individuals, and therefore when you went to one of the meetings, you were really speaking with the counterpart in government about their country's interest in water and water transportation development.

The International Committee on Large Dams was made up of members of the industry and also individuals from various national organizations. The important thing is that in each of these the United States was looked to as a leader in water resources and environmental programs. I felt that there should be a way that our national engineering potential could be brought into the international arena.

Even though it wasn't an assigned role of the Corps of Engineers, there was no reason why we shouldn't use our opportunities to open the doors for the American engineering and construction industries and also to further relationships of the United States with our friends throughout the world. So I became pretty solidly convinced that we should do whatever was possible to transfer American knowledge and technology in the engineering and construction fields both in the military and in the public works arenas.

As opportunities began to reveal themselves through discussions in the international organizations, we soon found countries wanting our advice in a variety of subjects. It was my

hope that we could develop this program to help the American construction and engineering industry and also to help the quality of life throughout the world.

Unfortunately, the ability of the Chief of Engineers or even the Corps to expand this program depended a great deal on funding and internal support. There was in the Corps, and in the Executive Branch of government, a feeling that the talent of the Corps of Engineers had been established to perform only those missions which were funded by the United States government and primarily within the United States. These missions might be neglected if the foreign program became too demanding of manpower assets. As a result, the international initiative was constrained.

I mentioned the Suez Canal earlier, and there was a typical example where for just a few thousand dollars the United States could have had a very major role in reconstruction of the corridor from Port Said in the north down to Suez City at the southern end of the canal.

In addition to the constraints placed on the Corps because of manpower diversion, there was a further constraint placed on the U.S. construction industry by U.S. tax laws. Whereas other nations were actually subsidizing the construction industry seeking international work, our government was tilting the playing field to the disadvantage of our industry. There was more to it than just the people doing the work. In the Saudi program, as we will probably discuss later, in addition to the work, all the materials and supplies were produced in the United States. If we put up 10,000 homes, there were 10,000 refrigerators, 10,000 stoves, et cetera, made in the United States.

The erosion during the 1970s of U.S. involvement in the international construction and engineering fields was dramatic. In the **mid-1970s**, American contractors performed 90 percent of the work in Saudi Arabia. By 1980, I'd say 15 percent of it was by American contractors. The Koreans with Korean government support took over most of the major jobs. Morrison Knudsen lost an \$800 million job to Sam Whan in Saudi Arabia. The Japanese whipped American dredgers in dredging the Suez Canal and other areas of the world. The Dutch government financed their contractors and actually financed some of the jobs to help their contractors get work.

So the international initiative may have been a great idea in many ways, but the ability of the Corps of Engineers to ensure American participation in the international arena became more and more difficult. Even though our initiatives in this area increased, overriding counterforces came into play. Ironically, the desire to have American effort never diminished on the part of the countries which looked to the Corps. Unfortunately, the ability of the American engineering and construction industry to respond became so constrained that the program began to atrophy.

Q: During the 1970s the Corps came under a lot of criticism, especially from the environmental community.

A: Somewhere in this dialogue we've got to talk about the Corps' image and reputation in the public arena. In 1970 there were no problems finding articles critical of the Corps of Engineers. It was a little frustrating because I believed then as now that as people know the Corps better, opposition diminishes proportionately. The better they knew us, the better they liked or at least understood us. So we had a real challenge in developing such an understanding.

I felt it was important to take advantage of every opportunity to speak to every group which asked us, whether they were opponents or friends. I welcomed appearances before the Sierra Club, the Wildlife Federation, Friends of the Earth, Ducks Unlimited, whatever. Sometimes

I felt these groups didn't want to hear our story. In any case, when we began to communicate with the people, we realized they also had certain objectives to protect or pursue. Since the Corps of Engineers was considered to be the bad guy, it made a pretty good target. Even so, we should not keep a low silhouette for fear somebody was going to shoot at us. That would be a poor approach. I believe it's better to keep a high silhouette and let people know what we stand for, even at the risk of getting shot at occasionally. So we went on an extensive program to be responsive and to participate. We began to react to criticisms by the press and in publications which were based on errors in the facts. I think I may have covered this point earlier.

I never believed that we should take on any editorial. Everybody is entitled to his own opinion, whether we agree with it or not. We should be serious about the facts. So we established a program that we would respond to public criticism if erroneous facts supported a position. That turned out to be a simple but effective move.

In the course of implementing it, we had interviews with the editorial board of the *New York Times*, with the management board of the *Reader's Digest*, and individual discussions with national writers. In this approach we never argued—I never did, at least, and I don't think our people did—although I visited most of the senior organizations myself. I usually took Locke Mouton, our public relations man, along. He helped prepare our position carefully.

I distinctly remember the *New York Times* visit. The writer was named Wayne King, and after visiting with him and his board, we later ran into each other at the Tennessee-Tombigbee hearing in Mississippi. King then wrote a more positive article about the Corps than I think he would have had we not visited with him earlier.

At the *Reader's Digest*, a man named James Miller had written a very critical article on the Tennessee-Tombigbee project and the Corps in general. Errors in fact prompted me to visit the leadership of *Reader's Digest* in Pleasantville, New York. We spent a very busy morning going through the article step by step. After that, I do not recall any critical articles based on nonfactual data.

A lot of articles began to appear which were authored within the Corps or by "question and answer" interviews. I had a very good experience with the Bass Anglers Sportsmen Society. BASS conducts an annual fishing contest that is publicized nationally. They had been fairly critical of the Corps; however, after attending one of their tournaments and visiting with Mr. Scott, Ray Scott and his people, they published some decent articles about the Corps on how it was handling the water resource program, et cetera.

The Corps personnel and I, in particular, became much more available and exposed. I went to the Audubon Society's annual meeting at Estes Park and made a keynote presentation. I believe we got across the point that if they were able to change the laws, that we'd be delighted to implement the changes; however, in the meantime, we intended to execute the laws in force. The same thing with the Fish and Wildlife Service meeting in Denver. So the point of this discussion is that not only the Chief but all the people in the Corps—the division engineers and the district **engineers**—were asked to make themselves available and to become active, not reactive. I think it had a positive effect.

We never, of course, expected to be free of criticism. On the other hand, we felt that we had to take some offensive against unwarranted, unjust, and erroneous criticism rather than assume a passive attitude that with time, all will pass. It wouldn't pass.

Publications of various sorts emphasized the Corps' role. I mentioned *Water Spectrum*. We also published special publications on dredge material, technical fliers on our research programs, et cetera. The aggressive public relations had several internally good effects. It bumped up morale and also began to get the team singing off the same sheet of music throughout the country. The latter became especially important in meeting the reorganization challenges which arose during the four years I was in the leadership position.

Q: Could I ask one follow-up question on that? Did this mean any changes in the Public Affairs Office, in the Corps headquarters?

A: Not really. We had a good civilian staff. There was Locke Mouton and Ray Leonard, also Warren **Pappen**, who was over in Civil Works directly under the director of Civil Works. Mouton was very well trained in the public relations business. He'd been working in Albuquerque and Tulsa Districts years before as a public relations person. He wrote well and he had an incisive view on things. So the staff was good.

Usually, an engineer colonel was the Public Affairs officer. General Kern, Sam Kern, as a lieutenant colonel was a very good Public Affairs person. Our public relations staff coordinated frequently with the Army Public Affairs people in the Pentagon.

As mentioned earlier, the Corps won the Silver Anvil Award, the Oscar for public affairs, with the *Sergeant Floyd* Bicentennial effort.

About the middle of my term two things happened at the Pentagon which affected the public affairs activities. First, they offered us a nonengineer professional public relations officer-Colonel Tom Garrigan. Garrigan was excellent. He knew most of the name reporters in town from his time in the Pentagon. He brought a new twist to our efforts.

The Army Chief of Public Affairs suggested that the Corps produce a magazine, a newspaper. So we started the *Engineer Update*. The first one was published in 1978 and has become pretty popular throughout the Corps. I hope it is being distributed to retired people and friends as well as just to active duty and permanent people within the organization because it should continue to get broader attention.

While on the subject of public affairs activities, I should cover a few specifics. One of our public affairs officers was a Lieutenant Colonel [John V.] Foley, who later became district engineer in Los Angeles. I was asked to appear on the NBC *Today Show* in 1974. Foley helped prepare me before we went to New York. As covered earlier, and while director of Civil Works, a Mr. Heuvelmans from Florida had written a book about the Corps of Engineers ruining the rivers of Florida.

He had been on the *Today Show* and gave us the works. I was asked to come up the next day, which I did, and was interviewed by Mr. Frank McGee. It came off okay, partially because the Public Affairs Office prepared me and managed the visit nicely.

A bit earlier, I had also been on *60 Minutes*. Now, the *Today Show* was one thing, that's live so you know what happens is what happens. On *60 Minutes* they took about four hours getting about maybe a minute on TV. Morley Safer did the interview in my office in Civil Works. Locke Mouton was present and helped me prepare.

The subject of their program was the conflict between the Fish and Wildlife people and the Corps over the effects of navigation and flood control, especially in the upper Mississippi. The *60 Minutes* process was interesting. Mr. Safer was very courteous as was everyone else while asking a lot of questions. As time went by, we became much more comfortable with each other, at least I did, and at the very end they made some comment about the Corps'

rebuilding the country. I mentioned how the Corps could help the Department of Transportation rebuild the Northeast railroad corridor. Joe Tofani had worked up a “Red Book” on the subject. So if anybody saw the show, they might remember that the last thing Morley Safer said referred to the Corps of Engineers’ having built so much of this country, et cetera, and then commented to the effect, “They’re not done yet. They’ve even got a red book on how to rebuild the railroads.” That’s what came out on television. I thought it rather humorous, but we got a lot of publicity out of that that we didn’t necessarily expect and I’m not so sure we wanted. We heard from the Department of Transportation.

The last event of national TV significance involved General Clarke’s 1970 interview by Lem Tucker. Tucker is still active. In any event, the program really did a job on General Clarke. It wasn’t a live program. They managed the film to show the Chief at bad angles with the bright lights. They showed dead fish in the river that had nothing to do with him. The scenario was put together in a way to make General Clarke and the Corps look like villains. That was in 1970.

Almost ten years later, in early 1979, the network considered a follow-up. They phoned and asked if I would participate in a ten-year review. I was delighted. Mr. Tucker came over and we sat in my Forrestal office. It was a very good interview. We got along fine. There were no rough spots to speak of. The conclusion had to be that the Corps had done a much better job than they had anticipated when they put the earlier program together.

The reprise was never shown. Later, after I’d retired, I was on a trip to Chicago and a group of reporters were also on the plane en route to the funeral of the well-known newsman, Max Robinson. Mr. Lem Tucker was among them, and I asked him about why he didn’t produce the 1979 interview. He indicated the Corps had done such a good job that there really wasn’t anything that would be of national interest. He seemed sincere when he indicated he would have liked to put it on, but his bosses wouldn’t let him show it.

The important point is that the Corps was a whipping boy for a long time, but as we began to get our act together and to do better environmental work, better understanding followed and criticism diminished—“diminished,” not “ended.”

The Corps as a public institution owes the public an honest face so that the public can see the Corps for what it really is. It’s almost as bad to fail to produce the honest picture as it is to tout something that you’re not, in the hopes of getting some kind of credit.

So that’s why I wanted to discuss the public relations program. I think the Corps’ image did improve over that period. Similarly, the same thing happened with the Congress. Our relationships with the Congress remained at a high level professionally in spite of the fact we had some extremely difficult projects ongoing: Tenn-Tom, Lock and Dam 26, the Ohio River, on and on, plus the permit program.

Q: What other agencies of the federal government, outside of the Defense Department, did the Corps work closely with during your term as Chief?

A: With the formation of the Department of Energy and with the development of the EPA, there were two new organizations on the scene during the decade of the 1970s which needed engineer support. The Corps made an effort to be available to those people. The Corps does a lot of work for EPA now and hopes to do more work for the Department of Energy.

At first, our work with the Department of Energy was difficult. When General Gribble retired, the last thing he said to me was, “Jack, in a few days you’re going to get a contract to do the strategic petroleum reserve for the Department of Energy.” The people he was dealing with

soon left the Department of Energy, and we ended up handling only the real estate-none of the government construction management.

It was the Department of Energy that moved us out of the Forrestal Building. I thought the Corps was in very good shape to work with the Department of Energy, but there were people in the organization that wanted to build their own engineering capability. Even after I retired, I met with and talked to the people in Department of Energy and explained my view that they needed an organization to get on top of the hazardous and nuclear waste problem. We spent half a day on that subject with their top people. Recently they have given the Corps some work out at Hanford and other places. The point I'm trying to make here is it takes a long time to get the relationships and associations going.

With EPA it took six or seven years following an initial **arm's-length** kind of arrangement. Finally, while Doug Costle was administrator of EPA, we signed an agreement for 600 **man-**years of Corps effort to help the administrator of EPA with the waste water problem.

When I left the job as Chief of Engineers the last couple of things I said to General **Bratton** were, "Leave the districts alone," and, "go get the hazardous waste program." He indicated his concern that the Corps was not qualified to do the hazardous waste program. I said, "Neither is anyone else, and the Corps can become qualified more quickly than anyone else." That's worked out to a degree.

Work for others has to be kept on the Chief of Engineers' things-to-do list. It doesn't matter who the others are, but you either go forward or you're going to go backwards. With the Corps' construction involvement going down, it has to find other places to use its talent, and work for others is one way.

I never thought we had quite enough work for the Department of State. We made some inroads on that. The trip to China was a by-product, to some extent. There were other flashes. The Corps could and should have done the foreign building office work in the embassy field.

USAID was another organization within Department of State that sporadically gave the Corps work internationally. HUD, in their protocol with the Russians "housing and other construction," gave us the "other construction" piece as mentioned earlier.

Then there were the laboratories. At that time our laboratories, WES, CERL, and CRREL [Waterways Experiment Station, Construction Engineering Research Laboratory, and Cold Regions Research and Engineering Laboratory] performed a significant amount of work not only for other federal agencies but for certain industries at times. The CPAR program, which Bob Page put together, is a good idea. I felt all along that if the Corps was going to execute research at public expense, the public was entitled to know the results and that information should be transferred to them. Thanks to Bob Page that happened, ultimately.

I also thought the United States Corps of Engineers labs should be allowed to support private industry. After I retired and was president of PRC, Engineer Group, the Dutch put their Delft Laboratories behind one of their contractors to bid on a major international bridge job. Finally, the Corps of Engineers laboratories were allowed by Congress to support private industry under certain conditions.

The mayor of Seattle came to see me in 1979 and asked for some help on a new bridge. He wanted the Corps of Engineers' technical advice on it. I was told by the staff we couldn't do it because there was no authority. That was correct. On the other hand, there was no directive not to do it. It was a vacuum. At least that was my understanding.

The point was, though, it was the right thing to do. After all, the city of Seattle was another government within the United States spending federal dollars and needing help. The Corps was available, had the capability, and would be paid for its service. Finally, the Corps helped Seattle. It was not a great deal of effort but it was enough to solve the need. That began the whole idea that we should probably make the Corps' capability, through its labs and otherwise, available to others under selected conditions.

We've done work for the Department of the Interior, including the Bureau of Reclamation. I think it was either General Hatch or General Heiberg along with General Wall who preached the idea of the "federal engineer."²⁹ That's the concept. I think it's a little stretch and risks some resentment to say, "The Corps will be the federal engineer," but the idea is right. The more work you do for others and do it well, the more likely you are to get there by evolution rather than by dictum. If you put up on the table the thought that the Corps is going to be the federal engineer, you would probably get a lot of competition and argument about it. If you get there by growth, you'll probably make it because the Corps can do all these things and do them well. The Congress recognizes that and always has. That's how the Corps grew in the water business in the first place.

So I think the work done for others is more than just the work itself, it's a whole philosophy. It's necessary for the survival of the Corps. In the 1970s we could see the construction work going down and the operation and maintenance going up, but in order to keep our tools sharp



Groundbreaking ceremony of the Arthur Casagrande Building at the Waterways Experiment Station in Vicksburg, Mississippi, on 28 June 1978. Next to the prominent engineer, Casagrande (left), are General Morris (center) and Colonel John L. Cannon, commander and director of WES.

in the field that we were best qualified for, we needed to have work of the type that required our engineering staffs to be busy, not only our operation and maintenance staff. So work for others was critical. Is critical. I think we can do a lot more. I think we should do work for states if they need us and can pay for the service.

Q: One question about work for others. In more recent years, some of the assistant secretaries have been reluctant about the Corps' participating in work for others. Were there any problems with the Assistant Secretary or the Secretary of the Army on your initiatives in this area?

A: My only answer to your question is I didn't find that a real problem with the assistant secretaries during my term because I did have the president's and the Secretary of the Army's support.

Q: Responding to natural disasters and emergencies also required your attention as Chief.

A: It seemed that every year there were one or two events that required immediate reaction.

As our government experienced these emergencies and more and more of the public was impacted, the organization to deal with the emergencies was adjusted. As a result, sometime after Hurricane Agnes and in the **mid-1970s**, FEMA came into being, Federal Emergency Management Agency. That had an impact directly on the Corps. In emergency conditions, the law allows the Corps of Engineers to use funds otherwise appropriated to prevent loss of life or critical damage.

However, to go beyond that into the clean-up phase or to provide relief after the event is another matter. Prior to FEMA the Chief of Engineers could be more decisive in responding to disaster matters. During Agnes, General Clarke had to be sure that the Office of Emergency Preparedness was aware of what he was doing to relieve suffering and clean up the damaged areas. The Corps was much more responsive in those days. Today, in order to enter the repair and clean-up phase, FEMA must direct the Corps to act. I'm not being critical of FEMA, but it's another layer of decision making.

Because of the flooding that had occurred in the early 1970s while I was director of Civil Works, we had set up in the Chief of Engineers' office an Emergency Operations Center to monitor floods and disasters. Today, the center has matured and increased in its effectiveness.

I noticed during Hurricane Andrew that the Army became more visible than the Corps of Engineers. I have no problem with that, but I'm trying to emphasize there's been a major change in the authority and a reduction in the flexibility of the Chief of Engineers.

My first experience with emergencies was "Operation Snowbound" in the Midwest in 1949, January of 1949. Based on a series of emergencies over 25 years, I believe in many ways the public was better served when the Chief could respond directly rather than through FEMA.

The important change was setting up FEMA. Fortunately, General Ben Lewis, who was a Corps officer, helped to develop FEMA procedures. George Orrell, who had been with the Strategic Studies Group, went to FEMA also. George was just an outstanding civilian employee. He did great work for the Corps and he was a real asset over at FEMA.

My last emergency involvement was Mount Saint Helens. Incidentally, Mount Saint Helens was the catalyst that led to our finally being able to get a new aircraft. I was out of the country at the time, and General Heiberg used the Chief's plane to visit the site, but he couldn't get there as fast as everybody else did because of the quality of the aircraft. The Corps did a tremendous job with the Mount Saint Helens disaster. Because of my trip to China and the Israeli airfield matter, I had practically nothing to do with the critical phase. The emergency

work was initiated promptly thanks to General Heiberg's good work, and that of the Deputy Chief of Engineers-Major General James Johnson.

The main thing about the emergency program, in my judgment, is that the Corps has a great capability to respond because of the quality and geographical setup of the organization. When the Corps' men and women, even retired individuals, know the Corps is on the firing line, they'll respond.

The only other emergency-we've already talked about it-is military emergency. The Corps, along with the rest of the Army, needs to keep current on what to do in case there is a mobilization or a major military conflict.

Q: You mentioned before we started today that you recently ran into a friend who had an impact on your career.

A: Yes-[Brigadier] General Arch Hamblen, retired. People who have been important in your life are too often forgotten. Hamblen was a classmate assigned to West Point when I was being considered for assignment there. He personally went to see the commandant and suggested that they accept me. That ultimately happened.

Later, he was transferred to the Pentagon just before I was ordered to the Army Legislative Liaison office. Arch, a very religious man, was in charge of the general officers prayer breakfast. All the members of the prayer breakfast were generals except for Colonel Hamblen, who took care of the administrative arrangements.

Another colonel joined-Elizabeth Hoisington, soon to become the first woman general in the Army. Arch convinced them that he needed some help, and so I was brought into this as his alternate and the number two colonel. I've forgotten the details, but I managed the breakfasts during a period when we studied the book of Mark. If the general who was supposed to have the subject on a particular day didn't come, then the colonel had to do it. Well, we had a lot of generals that didn't want to talk about Mark, I guess, because I recall I gave many of the sessions.

Later, the promotion board that selected me for brigadier general was comprised of several generals from that prayer breakfast. Apparently my dissertations on Mark made a favorable impression, and I can -thank Arch Hamblen for his role in my getting promoted to general. Saint Mark probably had a lot to do with it too.

Q: Who was your driver when you were Chief?

A: When I was director of Civil Works I had a driver named James Boswell. Boswell was very natty and devoted to his boss. It didn't matter if it was Morris or Koisch or whoever had the job. James was probably the best driver the Corps had. He always dressed properly and wore a cap and he was always available.

When I moved up to be the deputy I brought James with me. Then, when I became Chief, we had a real problem because the Chief's driver was "Jeff" [John Jeffries]. Jeff's a wonderful man, really, but James had been with me too long to abandon him, so Jeff had to move aside.

I noticed in 1977 that James was becoming less alert and his driving more erratic as time went on. So in the summer of 1978 I asked him if he didn't think it was time to retire. He didn't. So I asked James to see a doctor. He did, and we learned he had terminal cancer.

James had accumulated almost a year of sick leave. Actually, it turned out to be enough so he could go on sick leave for the period of time necessary to reach permanent retirement and certain benefits.

When I mentioned this to James' doctor, he predicted James would be lucky to live the year. Well, he made his retirement date by just five days. It was sad. I lost a good friend.

Then Jeff came up, and I have to say Jeff was excellent and is still a good friend. Those drivers were a great part of the Corps family. Not many people realize that, but you know, when you're going to a tough meeting or congressional hearing, it's nice to have a driver who will listen-and not argue.

Chief of Engineers: International and Military Projects

Q: Let's begin talking about the major projects that occupied your attention when you were Chief.

A: Well, we're down to projects. Let's take some of the easy ones first. Russia. While director of Civil Works sometime during President Nixon's Administration a protocol was set up with the Russians called "housing and other construction." "Other construction" was everything except housing and therefore was the most diverse and often biggest piece of this package. It included waterways, dams, tunnels, highways, ports, and all things except housing. The chairman of the group was always the Secretary of Housing and Urban Development [HUD]. That was Patricia Harris during our time.

In December of 1977 I went to Russia as part of the housing and other construction group and took the chief of Operations of the Corps, and several engineers from CRREL. We had asked before we went if we could visit the railroad tunnels they were digging and also to go to one of their laboratories to visit their dam and hydraulic design facilities. The Russians wouldn't show us the tunnel because they'd had some problems with it.

That meeting was quite interesting and they later sent a delegation to the United States, but nothing, to my knowledge, ever came of any of our initiatives with Russia, either from the HUD's or from the Corps' standpoints. There was a lot of activity between CRREL and the Russians which from a scientific standpoint was productive. To my knowledge, very little in the engineering field other than research and development materialized.

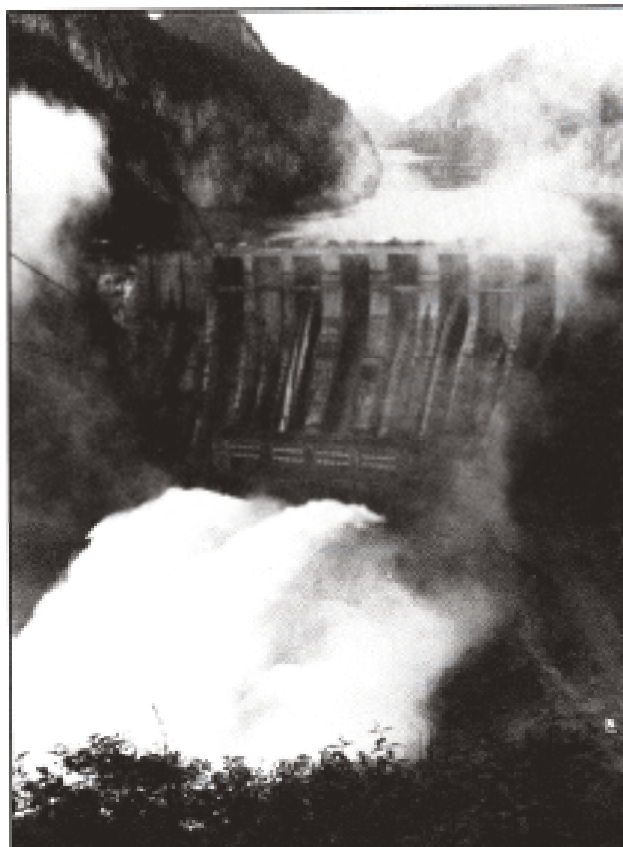
On the other hand, a similar situation arose with China during my tour as Chief of Engineers. Vice President [Walter] Mondale had been to China in August of 1979 and as a result of that trip had agreed to send a delegation of American engineers back to China to discuss water resource development and hydropower, specifically the Three Gorges Dam. That delegation left in late February of 1980 and came back in about three weeks. The delegation consisted of Dave Freeman, the chairman of the Tennessee Valley Authority, Assistant Secretary of the Interior Martin, and a group from the Bureau of Reclamation, the Bonneville Power Authority, and the Corps of Engineers. The principals were allowed to take their wives. Gerry was allowed to go with the wives of other chief delegates.

The Corps also provided the exec and secretary for the whole group. Our highly qualified group of engineers included Duscha, Murden, and Robert Bruckner.

We arrived in China and were divided into several groups. Mine included one Tennessee Valley Authority man, a couple of Corps people, and several Chinese engineers. Our host was the Minister of Water Resources and **Electricity**—a Mr. Li Rei. He was a Mao supporter and had had a very tough time in the Nationalist prison before he was released. He was a top party



The dam at the Shimen Power Station during General Morris' trip to China in 1980.



The dam at the Wujiangdu Power Station under construction during General Morris' trip to China in early 1980.

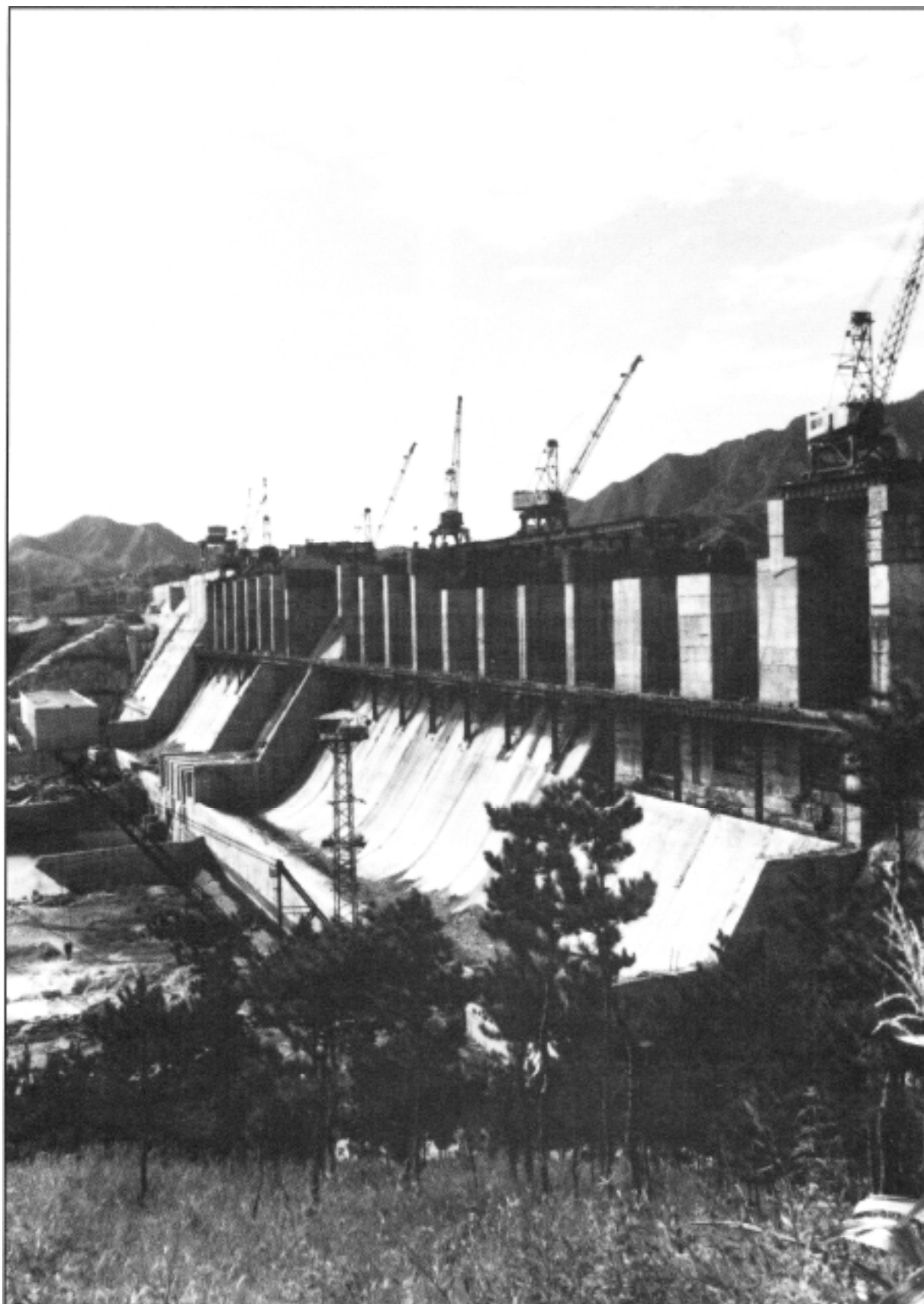
member. Li Rei wanted to go with the Corps people. Lloyd Duscha was with me. Bill Murden went with another group.

The bureau group went up the Yangtze River to Three Gorges whereas our group traveled south to the Pearl River. Ours proved to be a tough trip for about a week. We traveled in a new Toyota van through mountain trails and narrow roads looking at dam sites. The accommodations in 1980 were Spartan government houses. In some places, we slept on beds with wooden or rope bottoms, no heat, and outside toilets. It was cold in February. Everything was very clean. A Chinese girl came in the morning and brought us a pitcher of hot water. Unless you hurried it was soon cold. The food was marginal but it was a military-type setup and nothing that I had not encountered before as a soldier, but it was primitive by our construction site standards.

At one site I visited a nearby troop unit which was doing some initial exploratory work on the dam site.

I spent a lot of time with Mr. Li Rei. Somewhere along the line when we were alone he brought up the subject of the Three Gorges Dam and what did I think of it. Since I had not seen the site, I only noted that we had seen several other sites which with less money would get power sooner. I had the feeling that he agreed.

Yichang, a major city on the Yangtze River, is the site of a dam called Gezhouba. The entire American group assembled there. We were staying in a construction camp, again, which was



The dam at the Panjiakou Power Station during General Morris' trip to China in early 1980.